

**SYSTEM FOR CODE DIVISION MULTI-ACCESS COMMUNICATION****ABSTRACT OF THE DISCLOSURE**

According to the present invention a received  
5 Direct Sequence Code Division Multi-Access (DS-CDMA) signal  
is differentially decoded at the chip level. A number of  
signaling schemes can be used in the invention including (1)  
an ON/OFF signaling scheme in which a pseudo noise number  
10 (PN) code is sent only in response to one data bit value,  
and no signal is sent in response to the other bit value;  
(2) a Two Code signaling scheme in which bit values of 1  
triggers a first PN code to be transmitted, and a bit value of  
0 triggers a second PN code to be transmitted; and (3) an M-  
ary signaling method in which a plurality of data bit  
15 patterns respectively, trigger a plurality of PN codes to be  
transmitted. After differential decoding the received  
signal is despread using one or more PN codes, that can be  
vector sums of two or more PN codes.